

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Amendment of Part 2 of the Commission's)	ET Docket No. 00-258
Rules to Allocate Spectrum Below 3 GHz)	
for Mobile and Fixed Services to Support)	
the Introduction of New Advanced)	
Wireless Services, including Third)	
Generation Wireless Systems)	

To: The Commission

REPLY COMMENTS OF WIRELESS ONE OF NORTH CAROLINA, L.L.C.

Wireless One of North Carolina, L.L.C. ("WONC"), by its attorneys, hereby files these Reply Comments in response to the Federal Communications Commission's ("Commission") proposal in the *Notice of Proposed Rulemaking and Order* ("NPRM"), released on January 5, 2001, to reallocate spectrum for Third Generation ("3G") mobile services.

In their initial Comments, WONC, numerous wireless broadband operators, MDS licensees and ITFS entities established that the 2150-2162 MHz spectrum and the 2500-2690 MHz spectrum is currently being utilized extensively and efficiently to provide commercial and important educational services in markets throughout the country.¹ In addition, many of the Comments also demonstrated that both the 2500-2690 MHz and 2150-2162 MHz bands are crucial to the implementation of digital high

¹ See, e.g. WONC Comments; Comments of Sprint Corporation ("Sprint Comments"); Comments of WorldCom, Inc. ("WorldCom Comments"); Comments of Nucentrix Broadband Networks, Inc. ("Nucentrix Comments"); Comments of SkyCable TV of Madison, LLC ("SkyCable Comments"); Comments of National ITFS Association ("NIA Comments"); Comments of the Catholic Television Network ("CTN Comments"); Comments of The University of Colorado ("UC Comments"); Comments of South Carolina Educational Television Commission ("SCETV Comments"); Comments of Northern Arizona University Foundation ("NAUF

speed wireless broadband services that are being developed by WONC in North Carolina, and by other operators throughout the country, and that reallocation of any portion of this spectrum would impede, and possibly derail, the development of digital high-speed wireless broadband systems around the country.² Further, only two of the dozen plus mobile operators and manufacturers that filed Comments in this proceeding specifically earmarked the 2500-2690 MHz spectrum as desirable for 3G services.³ Rather, most favored reallocation of the 1710-1850 MHz spectrum for 3G mobile services.⁴

1. Educational and Religious Institutions Have Established an Extensive Record of Widespread Use of the ITFS Spectrum.

In their Comments, numerous educational and religious institutions provided detailed information regarding their current and planned use of the ITFS frequencies in the 2500-2690 MHz

Comments”).

² See, WONC Comments; Comments of the University of North Carolina (“UNC Comments”); Letter from Randolph Community College to Roy Stewart, Chief of the Mass Media Bureau (“Randolph Letter”); Letter from Sandhills Community College to Diane Cornell, Associate Chief of the Wireless Telecommunications Bureau (“Sandhills Letter”); Letter from Vance-Granville Community College to Roy Stewart, Chief of the Mass Media Bureau (“Vance-Granville Letter”); Letter from Fayetteville Technical Community College to Chairman Michael K. Powell (“Fayetteville Tech Letter”); Letter from Pamlico Community College to Diane Cornell, Associate Chief of the Wireless Telecommunications Bureau (“Pamlico Letter”); Letter from Catawba Valley Community College to the Commissioners (“Catawba Letter”); Letter from Wayne Community College to Roy Stewart, Chief of the Mass Media Bureau (“Wayne Letter”); See, also, WorldCom Comments; Sprint Comments; Nucentrix Comments; Comments of Cisco Systems, Inc (“Cisco Comments”).

³ See, Comments of Verizon Wireless (“Verizon Comments”); Comments of Ericsson, Inc. (“Ericsson Comments”).

⁴ Comments of AT&T Wireless (“AT&T Comments”) at pp. 11-12; Comments of Cingular Wireless, LLC (“Cingular Wireless”) at pp.18-21; Comments of Nortel Networks Inc. (“Nortel Comments”) at pp. 5-7; Comments of Motorola, Inc. (“Motorola Comments”) at pp. 11-15; Comments of Lucent Technologies (“Lucent Comments”) at p. 12; Comments of Nokia, Inc. (“Nokia Comments”) at pp. 3-5.

band.⁵ The ITFS spectrum is being utilized to provide distance learning opportunities, teacher training, telemedicine services and multifaceted outreach services to rural and urban students nationwide.⁶ Further, many ITFS licensees described how their licensed spectrum is being integrated into the digital two-way high-speed wireless broadband facilities being developed by commercial operators nationwide. The ITFS channels are a crucial component in the implementation of robust broadband facilities that will offer both commercial and expanded educational services.

These compelling examples of the services being provided by the educational community over the ITFS spectrum establish a record of the continuing need for the current ITFS spectrum allocation to remain intact. This record rebuts the Comments of several mobile operators who claimed that the ITFS community had not demonstrated an adequate need for the spectrum.⁷

In its Comments, Verizon attempted to cast aspersions on the leasing arrangements that many ITFS licensees have with commercial wireless broadband operators.⁸ Verizon claimed that the ITFS spectrum has become commercialized and is no longer effectively utilized for instructional programming.⁹ Verizon's claims are misguided; they overlook the reality of ITFS usage.

First and foremost, the leasing arrangements Verizon decries are sanctioned by the Commission and codified in the Commission's Rules.¹⁰ They were adopted to encourage the development of unique

⁵ See, NIA Comments; CTN Comments; Comments of Network for Instructional Television, Inc. ("NITV Comments"); SCETV Comments; UNC Comments; Comments of the Board of Regents of the University of Wisconsin System ("Wisconsin Comments").

⁶ See, e.g. NIA Comments, Appendix; CTN Comments; SCETV Comments; UC Comments; NITV Comments.

⁷ AT&T Comments at p. 13; Verizon Comments at p. 25.

⁸ Verizon Comments at pp. 21-23.

⁹ *Id.*

¹⁰ 47 C.F.R. § 74.931

non-profit instructional services which have provided educational opportunities to millions nationwide. Such arrangements have expanded the scope and range of educational opportunities being provided via the ITFS spectrum. Because WONC and other wireless broadband operators will offer interconnectivity to previously disenfranchised segments of the population, the educational value of incorporating the ITFS spectrum into high-speed digital broadband wireless systems is so ubiquitous that it can not be easily quantified.

In other lease arrangements, ITFS licensees use portions of the ITFS spectrum entirely for instructional programming in excess of the minimum requirements set forth in the Commission's Rules. Still other ITFS licensees use all or substantially all of their spectrum themselves because they have no arrangements with a commercial operator or they lease only a small portion of their capacity.¹¹ Further, many wireless broadband operators transmit significantly more educational programming on systems incorporating ITFS channels than is required under the Commission's Rules.¹² Thus, Verizon's reading of the Commission's Rules fails to take into account the reality of the relationship between MDS operators and ITFS licensees and does not provide any evidence that the ITFS spectrum is underutilized by the educational community.

II The 2150-2162 MHz Spectrum is Crucial to the Development of High-Speed Digital Wireless Broadband Services and Should Not Be Reallocated for 3G Mobile Services.

While few of the Comments filed by the mobile operators and equipment manufacturers advocated reallocating the 2500-2690 MHz spectrum for 3G services, a number of Comments favored reallocation of the 2150-2162 MHz spectrum where the MDS-1, 2 and 2A channels are located.¹³

¹¹ See, NIA Comments; SCETV Comments.

¹² See, NIA Comments, Appendix.

¹³ See, AT&T Comments at pp. 14-15; Cingular Comments at pp. 22-24; Motorola

These Comments either ignored or disregarded the impact that reallocation of the 2150-2162 MHz spectrum would have on the development of high-speed wireless broadband services around the country, including the development of those services in North Carolina. Such a reallocation of this spectrum would be disastrous.

Most wireless broadband operators developing two-way systems are utilizing the MDS-1, 2 and 2A channels available to them for upstream communications.¹⁴ WONC holds authorizations for 11 BTAs in North Carolina and filed applications for upstream communications on the MDS-1 and 2A channels in four of those BTAs during the recent Two-Way Filing Window. It expects to file additional applications for the MDS-1 and 2A channels to expand its initial two-way proposals. Due to their physical separation from the rest of the ITFS/MDS band, these channels are generally the first choice of operators for upstream communications in a two-way system.¹⁵ In many cases, these channels are already licensed to the BTA holder and can be utilized immediately. Because the BTAs were acquired at an FCC auction, reallocating and reauctioning of this spectrum for 3G services raises significant legal and public policy implications.¹⁶

Use of the 2150-2162 MHz spectrum in conjunction with the 2500-2690 MHz spectrum will also enable wireless broadband operators to utilize the spectrum more efficiently for two-way services.

Many operators, like WONC, that filed applications for upstream communications on MDS-1, 2 and 2A channels in the recent Two-Way Filing Window expect grants of those applications in early April.

Comments at pp. 11-12; Nokia Comments at pp. 3-5; Verizon Comments at pp. 14-15; Ericsson Comments at p.14;

¹⁴ See, Sprint Comments at pp. 31-32; WorldCom Comments at pp. 23-24; Nucentrix Comments at p. 20. See, also, WCA Comments at pp. 40-44.

¹⁵ WCA Comments at pp. 40-44.

¹⁶ See, *Id.* at pp. 45-48.

Reallocating the 2150-2162 MHz spectrum after the grant of those applications would wreak havoc with the launch of high-speed digital wireless broadband systems all over the country and would be disastrous for the service. WONC urges the Commission to keep the MDS-1, 2 and 2A channels in the 2150-2162 MHz band and not to allow 3G services to access this band.

III Band Segmentation of the 2500-2690 MHz Band Is Not A Viable Option.

In its Interim Report¹⁷, the Commission discussed three possible band segmentation options for the 2500-2690 MHz band and concluded that band segmentation was not feasible.¹⁸ A number of Commenters agreed with the Commission's conclusion and provided further evidence that any segmentation option would be unworkable given the complex nature of the MDS/ITFS spectrum.¹⁹ Verizon, in its Comments, disagrees with the Commission's conclusion and claims that segmentation of the 2500-2690 MHz band is feasible.²⁰ As discussed above, Verizon's claims rest on incorrect assumptions about the nature of the ITFS service. Further, Verizon's dismissal of the myriad of problems associated with segmenting this complicated spectrum band ignores operating realities. WONC believes that the Commission was correct in concluding that segmentation is not a viable option.

¹⁷ FCC Staff Report Issued by the Office of Engineering and Technology, Mass Media Bureau, Wireless Telecommunications Bureau, and International Bureau: "*Spectrum Study of the 2500-2690 MHz Band: The Potential for Accommodating Third Generation Mobile Systems*," Interim Report, ET Docket No. 00-232, DA 00-2583, released November 15, 2000 ("Interim Report").

¹⁸ *Id.* at iii.

¹⁹ *See*, Sprint Comments at pp. 23-24; WCA Comments at pp. 38-40; Cisco Comments at pp. 9-10.

²⁰ Verizon Comments at pp. 25-26.

IV Commenters Advocating Relocation of Some or All of the ITFS Licensees Failed to Identify Suitable Spectrum or Address the Problems Associated with Relocation.

None of the Commenters advocating reallocation of the 2150-2162 MHz spectrum and 2500-2690 MHz spectrum realistically addressed the problems associated with relocating the current licensees to other spectrum. Of the Comments filed, only Ericsson suggested alternative spectrum -- at 3.5 GHz.²¹ However, Ericsson's suggested relocation spectrum is inappropriate for the high-speed digital wireless broadband services that are being developed.²² Spectrum below 3GHz is required for MDS/ITFS services and no such spectrum is available. Further, as Sprint points out in its Comments, relocation of any of the current MDS or ITFS licensees presents many additional and unique problems.²³

Any relocation of the ITFS licensees from the 2500-2690 MHz spectrum to as yet undetermined alternative spectrum would have an adverse impact on the relationship between these ITFS licensees and the wireless broadband operators developing systems. Any relocation spectrum could not be utilized for the high-speed digital wireless broadband services being offered by the operators. If the operator cannot use the relocation spectrum, then the relationship between the operator and ITFS licensee would terminate.²⁴ This would deprive the ITFS licensees of the financial and technical support they receive from the wireless broadband operators. Such support is crucial to many educational institutions as it provides additional money for often dwindling budgets and advanced technical services that many educational entities could not otherwise provide. This is

²¹ Ericsson Comments at p. 16, n.33.

²² See, HAI Consulting, Inc, *MDS/MMDS/ITFS Two-Way Fixed Wireless Broadband Service: Spectrum Requirements and Business Case Analysis*, White Paper (February 22, 2001) (attached as Appendix B to WCA Comments) at pp. 8-9.

²³ Sprint Comments at pp. 26-31.

certainly true in North Carolina where the technical and financial support that WONC is providing to many of the community colleges is allowing them to move forward with plans for sophisticated two-way operations on their campuses and in their communities around the state.²⁵ Any relocation of the ITFS licensees would jeopardize this support and these plans.

5. Conclusion

The Comments filed in this proceeding do not support the reallocation of the 2150-2162 MHz or 2500-2690 MHz bands for 3G mobile services. The Comments filed establish a strong record of extensive and efficient use of the MMDS/ITFS spectrum and a need for the entire 2150-2162 MHz and 2500-2690 MHz spectrum bands to provide the type of high-speed two-way digital wireless broadband services being deployed throughout the nation. Indeed, the majority of Comments filed by the mobile operators and equipment manufacturers indicate that they do not want the 2500-2690 MHz spectrum as their first choice for 3G wireless services. Consequently, the Commission should pursue the numerous alternative spectrum bands discussed in the *NPRM* as suitable for 3G services.²⁶

Respectfully submitted,

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By: _____
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By: _____

²⁴ See, NIA Comments at pp. 28-31.

²⁵ See, e.g. Randolph Letter; Sandhills Letter; Vance-Granville Letter; Fayetteville Tech Letter; Pamlico Letter.

²⁶ *NPRM* at ¶¶ 34-39.

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